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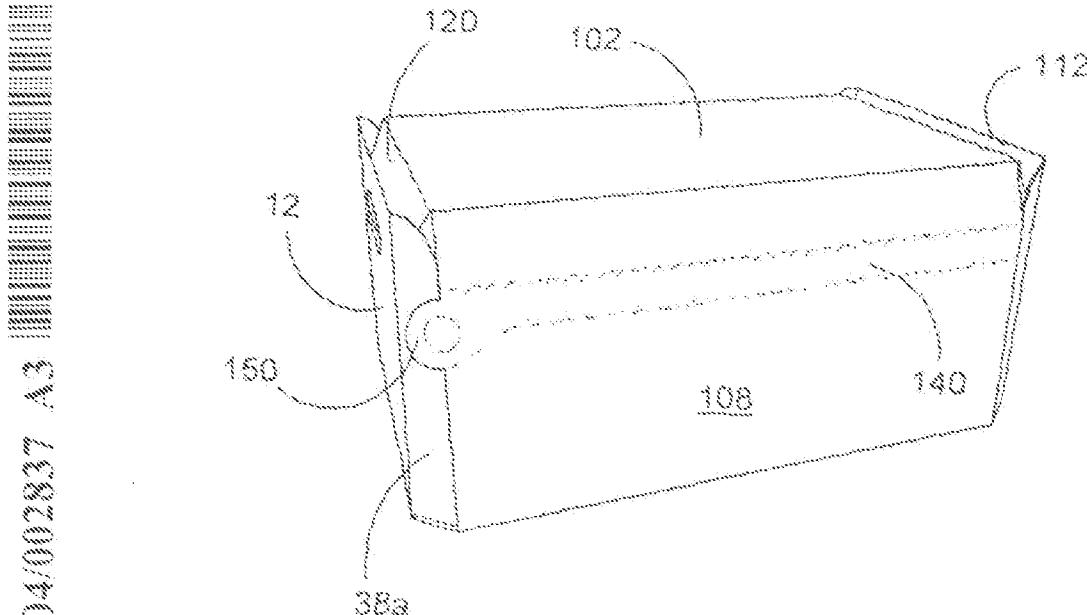
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| (71) Applicant (for all designated States except US): MEAD-WENTWACO PACKAGING SYSTEMS USA (US/US), 42850 North Church Lane, Smyrna, GA 30080 (US). | | (88) Date of publication of the international search report: 29 April 2004 |
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{Continued on next page}

(54) TRAY CARTON AND CARTON BLANK



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(87) Abstract: A carton and a blank for forming a carton including a tray portion (10) with an open top and a cover (100) connected to the tray portion (10) to close the top of the tray portion. The tray portion has a pair of opposed end walls (12, 16) each having a hand aperture (34, 42) and the cover (100) has a pair of end flaps (112, 114) disposed internally of the end walls (12, 16) of the tray portion (10). Another aspect of the invention also covers a package including a carton referred to above and a collapsible carrier (291, 391) retained within the carton.

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Circular.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 03/20216

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.: because they relate to part of the International Application that did not comply with the procedures requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 8.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not make payment of any additional fee.

3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, the International Search Report is limited to the invention first mentioned in the claim, it is covered by claim No.:

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Remark on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/SA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-11

1.1. claims: 1-6

A carton including a tray portion with an open top and a cover connected to the tray portion to close the top of the tray portion, wherei the tray portion has a pair of opposed end walls each having a hand aperture and wherein the cover has a pair of end flaps disposed internally of the end walls of the tray portion, and two blanks for forming said carton whereby

the handle has a reinforced protecting structure

1.2. claims: 7-8, 11

A carton including a tray portion with an open top and a cover connected to the tray portion to close the top of the tray portion, wherei the tray portion has a pair of opposed end walls each having a hand aperture and wherein the cover has a pair of end flaps disposed internally of the end walls of the tray portion, and two blanks for forming said carton whereby

the tray portion and cover are formed from first and second separate blanks respectively

1.3. claims: 9-10

A carton including a tray portion with an open top and a cover connected to the tray portion to close the top of the tray portion, wherei the tray portion has a pair of opposed end walls each having a hand aperture and wherein the cover has a pair of end flaps disposed internally of the end walls of the tray portion, and two blanks for forming said carton whereby

a tear strip is provided for opeing the package

2. claims: 12-28

A package including a carton, articles arranged in rows and accomodated within the carton, a collapsible carrier placed within the carton, and the blanks for realizing this package.

INTERNATIONAL SEARCH REPORT

Entered Application No.
PCT/US 03/20216

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 86505/32 86505/46 86505/54

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 86505

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------|
| X | CA 922 280 A (LANGEN MARINUS J M) 6 March 1973 (1973-03-06) page 4, line 25 - page 6, line 18; figures 1-3 | 1,4,7,11 |
| Y | US 4 871 067 A (VALENTI DANTE) 3 October 1989 (1989-10-03) column 3, line 1 - line 50; figures 1-3 | 8-10 |
| X | US 4 037 777 A (MAUGHAN WILLIAM G) 26 July 1977 (1977-07-26) column 1, line 45 - column 2, line 58; figures 1-3 | 1-6 |
| Y | 68 2 171 672 A (MEAD CORP) 3 September 1986 (1986-09-03) figure 4 | 9,10 |
| | ----- | ----- |
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Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *U* document which may bear date on priority claim(s) or which is used to establish the publication date of another claim or other special reason (as specified)
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- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but used to understand the principle or theory underlying the invention

W document of posterior relevance, the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is used alone

V document of particular relevance, the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

K document member of the same patent family

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INTERNATIONAL SEARCH REPORT

Inter Application No
PCR/US 03/20216

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No |
|----------|---|----------------------|
| Y | US 4 715 493 A (DREYFUS ROGER) 29 December 1987 (1987-12-29) column 4, line 59 - column 5, line 30; figures 11,12 | 8 |
| Y,P | EP 1 279 618 A (GOOSSENS BEAUVAIS) 29 January 2003 (2003-01-29) claim 1 | 8 |
| A | US 5 941 809 A (MCCARTHY LYNN J ET AL) 24 August 1999 (1999-08-24) column 1, line 25 - column 2, line 23; figure 3 | 3 |

INTERNATIONAL SEARCH REPORT

Information on patent family members

Interns..... Application No

PCT/US 03/20216

| Patent document checked in search report | | Publication date | | Patent family member(s) | | Publication date |
|--|---|------------------|------|-------------------------|--|------------------|
| CA 922280 | A | 06-03-1973 | CA | 922280 A1 | | 06-03-1973 |
| US 4871067 | A | 03-10-1989 | IT | 208805 72 | | 28-05-1988 |
| | | | EP | 0266321 A2 | | 04-05-1988 |
| US 4037777 | A | 26-07-1977 | NONE | | | |
| GB 2171672 | A | 03-09-1986 | DE | 8605398 U1 | | 03-07-1986 |
| US 4715493 | A | 29-12-1987 | NONE | | | |
| EP 1279618 | A | 29-01-2003 | FR | 2827582 A1 | | 24-01-2003 |
| | | | EP | 1279618 A1 | | 29-01-2003 |
| US 5941809 | A | 24-08-1999 | US | 5803347 A | | 08-09-1998 |
| | | | US | 5727728 A | | 17-03-1998 |
| | | | AU | 722802 B2 | | 19-08-2000 |
| | | | AU | 5357098 A | | 03-06-1998 |
| | | | CA | 2271485 A1 | | 22-05-1998 |
| | | | EP | 1025008 A1 | | 09-08-2000 |
| | | | JP | 2001503719 T | | 21-03-2001 |
| | | | WO | 9821105 A1 | | 22-05-1998 |
| | | | CA | 2224978 A1 | | 16-01-1997 |
| | | | EP | 0835211 A1 | | 15-04-1998 |
| | | | JP | 2001525764 T | | 11-12-2001 |